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# Potato contract farming and 'privileged spaces': preliminary insights from rural Maharashtra

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## Abstract

*The emergence of modern value chain schemes such as contract farming in rural India are exposing households to new forms of agricultural production. Evidently, the spread of such schemes in India will have spatial implications for rural development. This short communication offers preliminary insights of the contours of these spatial implications from a case study of potato contract farming in three villages in Maharashtra, India. It is proposed that studies that combine a local-scale livelihoods approach with global value chain analysis can strengthen understanding of agricultural change and rural development by grounding value chain analysis in the place-based everyday realities of rural households. Using this approach to adopt an evolutionary view of livelihoods and value chains will lead to a much deeper understanding of possible future development pathways for rural households under conditions of agricultural transformation.*

## Zusammenfassung

Die Herausbildung moderner Organisationsweisen von Wertschöpfungsketten in der Landwirtschaft wie beispielsweise durch Vertragslandwirtschaft im ländlichen Indien setzen Haushalte neuen Formen landwirtschaftlicher Produktion aus. Dabei ist offensichtlich, dass die Verbreitung derartiger Organisationsweisen in Indien räumliche Auswirkungen auf die ländliche Entwicklung haben wird. Dieser Kurzbeitrag gibt vorläufige Einblicke in die Konturen dieser räumlichen Auswirkungen anhand einer Fallstudie zu Vertragslandwirtschaft im Kartoffelanbau in drei Dörfern in Maharashtra, Indien. Dabei wird vorgeschlagen, dass Studien, die einen lokalen Livelihood-Ansatz mit der Analyse globaler Wertschöpfungsketten kombinieren, das Verständnis des Wandels in der Landwirtschaft und der ländlichen Entwicklung vertiefen können – durch die Verankerung der Analyse der Wertschöpfungsketten im Alltag ländlicher Haushalte vor Ort. Dieser Ansatz ermöglicht es, einen Blick auf die Veränderungen von Lebensgrundlagen und Wertschöpfungsketten im Zeitverlauf zu gewinnen; er kann damit zu einem weit tieferen Verständnis möglicher zukünftiger Entwicklungswege für ländliche Haushalte unter den Bedingungen landwirtschaftlichen Wandels führen.

**Keywords** Contract farming, India, rural livelihoods, global value chains, agriculture

## 1. Introduction

The transformations that have occurred in global agriculture in recent decades have been well document-

ed (for example *Reardon et al. 2009; McCullough et al. 2008*). These changes have been characterised by the emergence of modern agricultural value chains in the Global South, driven by processes of liberalisation, fi-

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nancialisation, changing consumption patterns and technological advances in both production and distribution (McMichael 2000; Reardon et al. 2009). The 'supermarket revolution' in developing economies is emblematic of this transformation (Reardon et al. 2003).

In India, agriculture has historically been a highly protected and politically sensitive sector. However, the liberalisation policy agenda that has dominated the Indian economy since the early 1990's is slowly opening up agriculture to private investment, reducing the role of the state in agricultural marketing and extension (Dorin and Landy 2009). This incursion of private capital into rural spaces that are still dominated by low input-based production systems is exposing millions of households to new ways of organising agricultural production, connecting small Indian farmers to global agri-food systems. The spread of contract farming in certain states of India is one such manifestation of this transformation.

Contract farming is a system of vertical coordination between grower and buyer, where the buyer, commonly a private retail or agri-business firm, can specify or control the conditions of production through contractual obligations (Little and Watts 1994). The contract farming model reflects the motivation of lead firms in modern agricultural value chains to ensure control of quality and supply (Reardon et al. 2009). As Bair (2005: 164) notes, through strategies such as contract farming lead firms are able to dictate "not just the specification of what products are to be produced, [but] how they are to be produced." As a result, households in India who previously met their livelihood needs supplying produce to loosely organised traditional markets now face a new set of challenges, opportunities and constraints in meeting the requirements of modernised production systems and accessing modern markets (Neilson and Pritchard 2009; Reardon and Minten 2011).

Evidently, the spread of contract farming in India will have spatial implications for rural development. Fold (2009: 16) expresses this as a concern that transformations in agri-food systems in the Global South will produce or reproduce "an archipelago of privileged spaces". Existing research on contract farming in India tends to focus on the gains for participating farmers from reduced transactions costs and increased market efficiencies, paying little attention to how contract farming schemes integrate with broader patterns of social differentiation and

rural development (e.g. Birthal et al. 2005; Roy and Thorat 2008). Further research is needed, then, to address this knowledge gap and improve understanding of what kind of 'archipelago' of privileged and disadvantaged spaces will result from the incursion of contract farming schemes into rural India. Given the issues identified above, the following primary research question for this study was formulated: how are contract farming schemes incorporated into rural spaces in India, and what does this mean for patterns of privilege and disadvantage? To begin addressing this question, this paper outlines some preliminary insights of a case study of potato contract farming in three villages in the state of Maharashtra, India.

### 1.1 Theoretical framework

Recently, economic geographers and other researchers have popularised the global value chain (GVC)/global production network (GPN) framework as a useful framework for understanding how transformations in modern agricultural value chains, including the spread of contract farming, are affecting growers in developing countries (Gomez et al. 2011; Nielson and Pritchard 2009; Fold and Larsen 2011). The GVC and GPN approaches have been reviewed extensively in the literature (Bair 2005; 2008; Coe 2012). In short, by positioning the value chain or production network as the basic organising feature of global capitalist production, GVC and GPN studies have contributed to debates about globalisation's winners and losers by analysing how firms and producers are integrated into the global economy, and how value is distributed along different nodes of a chain or network (Bair 2005; 2008). For example, in a classic GVC study Dolan and Humphrey (2004; 2000) showed how the decisions of British supermarkets to change their quality requirements for fresh vegetables adversely impacted small producers and exporters in Kenya and Zimbabwe.

The GVC and GPN frameworks, however, have not proved as adept in understanding how transformations in modern agriculture intersect with and influence patterns of local social differentiation, or reproduce broader patterns of privileged and disadvantaged spaces outside of the value chain or network of focus (Kelly 2013). The framework adopted for this study argues that case studies that combine a local-scale livelihoods approach with GVC/GPN analysis can strengthen understanding of agricul-

tural change and rural transformation by grounding value chain analysis in the place-based everyday realities of rural households.

The rationale for adding a livelihoods perspective to the GVC/GPN framework starts from a need to address a basic but intractable problem in regional development: "what can poor people in rural areas do to improve their lives?" (Mitchell et al. 2011: 1). Livelihoods analysis promotes a people-centred approach to rural development research. By focusing on how people and households appropriate and deploy resources (defined in the livelihoods framework as natural, financial, human, social and physical 'capital') in different contexts, a livelihoods approach helps identify the conditions and processes that empower or constrain people from pursuing livelihood opportunities and achieving successful outcomes (Turner 2012).

Building on the initial work of Bolwig et al. (2010), Challies and Murray (2011) and Fold (2014), the current study employs a combined GVC/GPN and livelihoods approach that aims to produce a more nuanced understanding of agricultural value chains and livelihood outcomes, anchored in people's experience of place. In particular, the study will adopt an evolutionary understanding of value chains and livelihoods, responding to calls from researchers such as Mackinnon (2012) to incorporate the insights of evolutionary Economic Geography into GVC/GPN analysis. Understanding the historical processes that drive the evolution of value chains and livelihoods in particular places will lead to a more nuanced understanding of rural livelihood trajectories and provide insights into possible future pathways for rural households as they increasingly interact with the global economy.

## 2. Preliminary insights from the current study

The final section of the paper puts the theoretical framework into action to address the research question outlined above, using a case study of potato contract farming in three villages in Satara district, Maharashtra. Some preliminary insights from the study are outlined using data from 54 qualitative semi-structured household interviews, as well as 18 key informant interviews, which were completed across the three villages from May to August 2013. These preliminary insights are broken down into four sections below.

### 2.1 Profile of contract scheme

The case study for this research focusses on three villages in Satara district, Maharashtra, where a number of households in each village are growing chipping potato under contract. Satara district is one of the agriculturally most productive districts in Maharashtra. The cash crop economy of Satara is relatively highly developed, with sugarcane extensively cultivated, as well as tomatoes, capsicum, brinjal (eggplant), pomegranate and other high-value horticultural crops. Agriculture is the dominant livelihood activity in rural Satara, and social status and village structure continues to revolve around ownership of land. Off-farm income sources including remittances are also increasing in importance as improving access to education enables younger household members to pursue off-farm opportunities. However, despite Satara district having relatively low official poverty rates compared to the rest of Maharashtra, many rural households still face significant livelihood challenges: the 2011 census of India reported that 20 % of the rural population in the district are illiterate and 30 % of households do not have a toilet facility.

Contract farming for chipping potato has spread rapidly in Satara district since an amendment to Maharashtra's agricultural produce marketing act in 2006 allowed for companies to establish direct contract relations with farmers. Chipping potatoes are used to produce potato chips for the Indian market. The snack food sector in India is growing rapidly, driving companies to establish contract farming schemes to ensure continuity of supply of raw material. According to one key informant, contract firms decided to locate potato contracting in Satara district for two primary reasons. First, most of the chipping potato crop in India is grown as a Rabi (spring harvest) crop, leading to seasonal peaks and troughs of raw material for processing factories. However, the climatic and soil profiles of parts of Satara district mean it is possible to grow chipping potato as a Kharif (monsoon) crop, allowing processing companies to secure year-round supply without having to rely on storage. Second, Satara district is in close proximity to the city of Pune, where major potato processing factories are located.

In one village, the contract scheme has been operating since 2006 and is controlled by PepsiCo, which produce Frito-lay branded potato chips for the Indian market. In the other two villages a domestic agri-business firm, who on-sells the chipping potato to local and interstate processors, controls the contract farming scheme, which has been operating since 2008 and 2011 respectively.

The contract schemes involve a tri-partite agreement between the farmer, the contracting firm and a local bank that provides credit. A fixed price is announced at the beginning of each growing season, and farmers are supplied with a fertiliser and pesticide kit as part of the contract agreement. A local village agent manages the scheme on the company's behalf in the village, providing extension advice and monitoring. Value is highly unevenly distributed in the value chain for potato chips. One key informant estimated that for every packet of chips retailed for 5 rupees, the contract potato grower receives about 0.43 rupees. The bulk of value is captured by downstream potato chip processors and branded retailers.

## 2.2 Role of livelihoods in determining participation

Across the three villages, there are common formal and informal requirements that act as barriers to participation in the contract scheme, influencing patterns of inclusion and exclusion. Formal requirements for participation include having at least 1 acre of land available and

having access to a reliable source of irrigation. Informally, it is evident that participants must also be able to access family, cooperative or hired labour. Many households are also excluded because of indebtedness or low levels of financial capital. All of these requirements are directly related to a household's livelihood assets and capabilities. A number of context-dependent factors in each village were identified as having influenced how particular household livelihood assets and capabilities have evolved over time, conditioning the ways in which a household is able to incorporate contract farming into its livelihood strategy (*Table 1*). These factors are likely to be overlooked by studies that do not incorporate an understanding of local livelihoods.

## 2.3 Contract farming and the production of privileged spaces

The preliminary results of the current study point to contract farming having important implications for the production and reproduction of 'privileged

Table 1 Important livelihood factors influencing contract participation (source: interview data)

Evolutionary livelihood factor	Impact on livelihood asset or capability	Example of impact on contract participation
Lower caste status	Impacts on all livelihood assets. Often landless or marginal landowners, poor financial, physical and social capital, constrained access to political power, credit institutions etc.	Lower caste status conditions a household's livelihood evolution. Lower caste households are constrained from participating, or self-exclude due to lack of information or risk adversity.
Household structure	Farm size and family labour availability	Male-dominated structure constrains participation for next generation through fragmentation of land holdings (male-dominated inheritance patterns). Women are the main suppliers of family labour.
Past investment choices	Availability of physical and financial assets	Historic capability or decision to invest in irrigation infrastructure enables participation.
History of credit relations and indebtedness	Financial capital and attitude to risk	Households who have experienced indebtedness in the past are less likely to take on risks of participating.
History of off-farm income	Financial capital, ability to invest, social capital	Household history of significant off-farm livelihood activities enables participation through capability to invest and openness to innovation.
Geographic location of land	Physical and natural capital	Evolution of land ownership patterns and location of farm land can highly constrain participation within a village due to spatial variation in soil quality, watershed topography and land quality.

spaces' within villages. Comparing the distribution of benefits between villages is more problematic. At the regional level, the sheer diversity of rural livelihoods, including off-farm activities, means that contract farming is just one among many important factors determining regional differentiation, making it difficult to isolate the impacts of the scheme.

At a village level, the asset and capability factors discussed above and their historical distribution in each village mean that contract participation has coalesced around a group of middle-class farmers owning between 3 to 10 acres of land. Marginal, lower caste and very poor farmers are unable to participate even if they desire to; in fact most farmers in this group reported either no knowledge of the contract scheme, or not having been approached by the village agent with any information on the scheme. Households classified by villagers as 'best-off' (who largely own the most land) tend to approach the contract scheme with indifference. Such households may dedicate land to the contract crop from time to time; however their preference is to independently access other high-value agricultural and off-farm opportunities using their own assets and connections, maintaining independence from contractual relations. Therefore, the success of the scheme depends upon the capture of middle-class farmers. Such farmers fit the profile that contracting firms are looking for: they have the right mix of assets and capabilities to be productive potato growers, while at the same time their lack of further assets and capabilities to independently pursue other high-value agricultural activities renders them dependent on the input, credit and extension facilities that the contract scheme offers.

This interaction of the contract farming scheme with pre-existing patterns of social differentiation has important implications for the reproduction of privileged spaces within each village. For the poorest group of households, the benefits are minimal and contract farming only reinforces their position of social and economic disadvantage. Within the middle group of participating farmers, most participants report that contract farming has led to small improvements in their livelihood situation through increased cash income and access to previously hard-to-come-by inputs and credit. However, it is evident that only a small minority of participants have realised significant gains from contract farming. These farmers typically owned more land, could afford wage labour and were already economically better off than other participants. There is, therefore, a clear limit to which contract farming can

shift pre-existing patterns of social differentiation. In fact, contract farming is reproducing patterns of privileged spaces because of the way in which it integrates with pre-existing livelihood patterns; it is an activity that depends on capturing middle-class farmers as participants and maintaining their position as middle-class farmers to ensure their ongoing participation.

## 2.4 Further implications

Finally, the preliminary insights of this study affirm the importance and effectiveness of a combined livelihoods and value chain perspective in such an analysis. Fetishising the contract farming scheme in development or policy interventions without understanding the evolution of household livelihoods and the context specific processes that determine the livelihood landscape of a village may mean that contract farming development projects fail to be pro-poor at the village level, instead reproducing existing patterns of privilege and under-privilege.

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